

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Cancelled)
2. (Previously Presented) The oil seal arrangement claimed in claim 12 wherein said oil seal chamber is not filled with said oil but an oil layer and an air layer are present in said oil seal chamber.
3. (Currently amended) The oil seal arrangement claimed in claim 12 further comprising a recess chamber formed on the outer periphery of said **[[pump]]** cylinder around said oil seal chamber, a first passage through which said recess chamber communicates with said oil seal chamber, and an oil injection port communicating with said recess chamber.
4. (Original) The oil seal arrangement claimed in claim 3 wherein said first passage is always submerged in said oil layer.
5. (Currently amended) The oil seal arrangement claimed in claim 3 wherein said oil seal chamber and said recess chamber have both an oil layer and an air layer, said oil layer in said oil seal chamber communicates with said oil layer in said recess chamber through said first passage, and said air layer in said oil seal chamber communicates with said air layer in said recess chamber through a second

~~passage, said first passage is formed at a portion submerged in said oil layers of said oil seal chamber and said recess chamber, and a second passage through which said oil seal chamber communicates with said recess chamber is formed at a portion communicating with said air layers of said oil seal chamber and said recess chamber.~~

6. (Cancelled)

7. (Currently amended) The oil seal arrangement claimed in claim 2 further comprising a recess chamber formed on the outer periphery of said ~~[[pump]]~~ cylinder around said oil seal chamber, a first passage through which said recess chamber communicates with said oil seal chamber, and an oil injection port communicating with said recess chamber.

8.-11. (Cancelled)

12. (Currently amended) An oil seal arrangement for a pump ~~eylinder~~ which contains oil and in which positive and negative oil pressures are alternately produced, said pump comprising a housing, a motor mounted to said housing, a cylinder fixedly mounted in said housing, a rotary shaft inserted in and rotatably supported by said cylinder and coupled to said motor at one axial end of said cylinder, and a pump unit disposed around and coupled to said rotary shaft at another axial end of said cylinder, said oil seal arrangement comprising:

a high-pressure seal mounted in said ~~[[pump]]~~ cylinder around ~~[[a]]~~ said rotary shaft ~~inserted in and rotatably supported by said pump cylinder;~~

said high-pressure seal being disposed between ~~[[a]]~~ said motor ~~provided at one end of said pump cylinder and coupled to said rotary shaft and~~ ~~[[a]]~~ said pump unit ~~mounted in said pump cylinder around said rotary shaft;~~

said pump unit being driven by said motor through said rotary shaft to suck and discharge oil into and from said ~~[[pump]]~~ cylinder;

a low-pressure seal mounted in said ~~[[pump]]~~ cylinder around said rotary shaft between said high-pressure seal and said motor; and

an oil seal chamber defined in said ~~[[pump]]~~ cylinder around said rotary shaft between said high-pressure seal and said low-pressure seal;

said oil seal chamber containing oil of the same type as oil in said pump unit, said rotary shaft being completely submerged in the oil in said oil seal chamber; and
said oil seal chamber being sealed from outside the housing.

13. (Currently amended) An oil seal arrangement for a cylinder containing oil, said oil seal arrangement comprising:

a high-pressure seal mounted in said cylinder around a shaft inserted in said cylinder to seal a pressure chamber defined in said cylinder around said shaft, wherein said pressure chamber is filled with oil and positive and negative oil pressures are alternately produced in said pressure chamber;

a low-pressure seal mounted in said cylinder around said shaft between said high-pressure seal and one end of said cylinder remote from said pressure chamber; and

an oil seal chamber defined in said cylinder around said shaft between said high-pressure seal and said low-pressure seal;

said oil seal chamber containing oil of the same type as oil in said pressure chamber, said shaft being completely submerged in the oil in said oil seal chamber and said oil seal chamber being sealed from outside a housing in which the cylinder is adapted to be fixedly mounted.

14. (New) A pump, comprising:

a housing;

a motor mounted to said housing;

a cylinder fixedly mounted in said housing, said cylinder having a bore;

a rotary shaft rotatably mounted in said bore of said cylinder and coupled to said motor at a side at one axial end of said cylinder;

a pump unit comprising rotary members disposed around and coupled to said rotary shaft at a side of another axial end of said cylinder, said rotary members being driven by said rotary shaft, thereby sucking and discharging hydraulic fluid in said housing;

a first seal member mounted in said bore of said cylinder between said pump unit and said motor for sealing between an inner surface of said bore of said cylinder and an outer surface of said rotary shaft;

a second seal member mounted in said bore of said cylinder between said first seal member and said motor for sealing between the inner surface of said bore of said cylinder and the outer surface of said rotary shaft;

a seal chamber sealed from outside the housing and defined between said

first and second seal members; and

a hydraulic fluid of the same type as the hydraulic oil sucked and discharged by said pump unit, which is present in said seal chamber, said rotary shaft being completely submerged in the hydraulic fluid in said seal chamber.

15. (New) The pump of claim 14, wherein the pump is a gear pump, and said rotary members comprise an inner rotor and an outer rotor.

16. (New) The pump of claim 15, wherein said bore of said cylinder has a small-diameter portion in which said first seal member is mounted, and a large-diameter portion in which said second seal member is mounted.

17. (New) The pump of claim 16, wherein said motor is mounted to and located outside said housing.

18. (New) The pump of claim 17, wherein said hydraulic fluid is oil.

19. (New) The pump of claim 14, wherein said seal chamber is not filled with said hydraulic fluid but a hydraulic fluid layer and an air layer are present in said seal chamber.

20. (New) The pump of claim 14, further comprising a recess chamber formed on an outer periphery of said cylinder around said seal chamber, a first passage through which said recess chamber communicates with said seal chamber, and a hydraulic

fluid injection port communicating with said recess chamber.

21. (New) The pump of claim 20 wherein said first passage is always submerged in said hydraulic fluid layer.

22. (New) The pump of claim 20, wherein said seal chamber and said recess chamber have both a hydraulic fluid layer and an air layer, said hydraulic fluid layer in said seal chamber communicates with said hydraulic fluid layer in said recess chamber through said first passage, and said air layer in said seal chamber communicates with said air layer in said recess chamber through a second passage.

23. (New) The pump of claim 19, further comprising a recess chamber formed on an outer periphery of said cylinder around said seal chamber, a first passage through which said recess chamber communicates with said seal chamber, and a hydraulic fluid injection port communicating with said recess chamber.